



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,575	04/14/2004	John Laurence Melanson	1369-CA-C1 (P233C1)	6552
7590 08/20/2004			EXAMINER	
Winstead Sechrest & Minick P.C.			YOUNG, BRIAN K	
P.O. Box 50784			ART UNIT	
Dallas, TX 75201			PAPER NUMBER	
			2819	

DATE MAILED: 08/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/824,575	MELANSON, JOHN LAURENCE	
	<b>Examiner</b>	<b>Art Unit</b>	
	Brian Young	2819	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 35-62 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 49-53 is/are allowed.
- 6) ☐ Claim(s) 35, 37, 54 and 57 is/are rejected.
- 7) ☒ Claim(s) 36, 38-48, 55, 56 and 58-62 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/14/04</u> . | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 2819

1. The following is a quotation of the appropriate paragraphs of 35

U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 35, 37, 54 and 57 are rejected under 35 U.S.C. 102(b) as being anticipated by Cressey.

Cressey discloses a digital data modulator and digital-to-analog converter selectably generating differential phase shift keyed (PSK) data signals and frequency shift keyed (FSK) data signals is disclosed. A clock generator (10) provides carrier frequency clock signals and a plurality of phase-shifted high frequency clock signals. A CLX generator (11) selects the proper PSK or FSK carrier clock. A data scrambler (17) accepts a serial data input stream and provides the scrambled dibit to the dibit encoder (12). The dibit encoder (12) converts the scrambled dibit into two phase-shifting control signals. **A three-tap finite impulse response filter (13)** generates carrier phase signals by splitting each cycle of the selected carrier clock into eight phases, and, for PSK operation, provides phase shifting in response to the two phase-shifting control signals. A multiplexer (14) selects one of the phase-shifter high frequency clocks in response to the carrier phase signals. A signal selector (15) converts the selected phase-shifted high frequency clock signal into a pulsewidth-modulated clock signal. The signal filter (16) provides the PSK/FSK data signal by

Art Unit: 2819

integrating the pulsewidth-modulated clock signal and also provides band pass filtering to clean up the waveform.

Clocks generator **197** generates the clocks listed in Table 9. PWMA logic 190 contains a CLX generator, a scrambler, a dibit encoder, **a finite impulse response (FIR) filter**, and a multiplexer (MUX) similar to those previously described. The logic equation for FA, in the PSK, FSK, and AT modes is: **##EQU3##** where XOR denotes the exclusive-OR operation. T1A, T2A, T3A and their negated forms NT1A, NT2A, and NT3A correspond to T1, T2, T3 and their negated forms, respectively, of FIG. 3. Clocks Q1 through Q5 are as shown in Table 9. The frequency of T1A, T2A, T3A and their negated forms will be either 1200 Hz (originate) or 2400 Hz (answer) in the PSK mode. It should be recalled that, in the PSK mode, the phase of T1A and NT1A may undergo 0.degree., 90.degree., 180.degree., or 270.degree. phase shift, depending upon the serial data input stream. Note that FA.sub.PSK XOR Q1 yields five possible **duty cycles: 0.0, 0.297, 0.5, 0.703, and 1.0**. The 0.5 value represents the 0 volt output state of XFILTER 213 and appears at idle (no data) and in conjunction with certain 180.degree. and 270.degree. phase shifts of T1A such that T1A, T2A, T3A=101 or 010.


3. Claims 36,38-48,55,56,58-62 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
4. Claims 49-53 are allowed.

Art Unit: 2819

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Young whose telephone number is 571-272-1816. The examiner can normally be reached on Mon-Fri 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Tokar can be reached on 571-272-1812. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Brian Young  
Primary Examiner  
Art Unit 2819

\*\*\*